

Title (en)  
SOLDER PREFORM FOR ESTABLISHING A DIFFUSION SOLDER CONNECTION AND METHOD FOR PRODUCING A SOLDER PREFORM

Title (de)  
LOTFORMTEIL ZUM ERZEUGEN EINER DIFFUSIONSLÖTVERBINDUNG UND VERFAHREN ZUM ERZEUGEN EINES LOTFORMTEILS

Title (fr)  
PRÉFORMÉ DE BRASAGE POUR PRODUIRE UNE JONCTION BRASÉE PAR DIFFUSION ET PROCÉDÉ DESTINÉ À PRODUIRE UN PRÉFORMÉ DE BRASAGE

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Abstract (en)  
[origin: WO2018197390A1] The invention relates to a solder preform for establishing a diffusion solder connection. The solder preform (11) has a solder material (20), which also forms the joining surfaces (12, 13) of the solder preform (11). The invention provides for the solder preform to have a further phase (18) for example in the form of particles, of which the material diffuses into the solder material (20) and thus forms a diffusion zone (19). The invention provides for this diffusion operation to be initiated in the solder preform during production of the latter (for example 1 by way of a heat treatment), as a result of which a diffusion solder connection forms more quickly when the solder preform (11) is subsequently soldered. Moreover, the diffusion zone (19), which may be formed by an intermetallic compound, stabilizes the solder preform while the solder material (20) is being liquefied. The invention nevertheless provides for the solder material still to be available at the joining surfaces (12, 13), in order for the solder connection to adjacent joining partners to be formed. The invention also relates to a method for producing such a solder preform.

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